

FINAL MEETING SUMMARY

HANFORD ADVISORY BOARD RIVER AND PLATEAU COMMITTEE

November 12, 2014

Richland, WA

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This is only a summary of issues and actions in this meeting. It may not represent the fullness of ideas discussed or opinions given, and it should not be used as a substitute for actual public involvement or public comment on any particular topic unless specifically identified as such.

Opening

Dale Engstrom, River and Plateau Committee (RAP) vice chair, welcomed the committee and introductions were made. The committee adopted the October 2014 meeting summary.

100 F-Area Record of Decision

*Introduction**

Dale introduced the 100 F-Area Record of Decision (ROD) topic and noted that the committee members were provided with a copy of the ROD Responsiveness Summary. The document grouped comments into categories and provided agency responses. Dale provided a brief synopsis of each of the comment categories and responses.

Agency Response

Greg Sinton, DOE-RL, stated that a DOE response to Hanford Advisory Board (HAB or Board) Advice #280 (Remedial Investigation/Feasibility Study and Proposed Plan for the 100-FR-1, 100-FR-2, 100-FR-

* Attachment 1: Responsiveness Summary from the Proposed Plan for Remediation of the 100-FR-1, 100-FR-2, 100-FR-3, 100-IU-2, and 100-IU-6 Operable Units

3, 100-IU-2 and 100-IU-6 Operable Units; DOE/RL-2012-41, Rev 0) would be sent in the coming weeks. Greg provided a brief synopsis of the information included within DOE-RL's official response:

- The HAB was concerned that the long timeframes included within the ROD are unreliable and difficult to maintain. The five-year review procedures that are built into the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process will address these concerns.
- The Board noted that the Balancing Criteria have not been done correctly. In the short-term, it is true that some contaminants could be removed faster. However, strontium-90 will remain regardless of cleanup efforts and expenditures. Therefore, timeframe for remediation would remain the same.
- The Board advised the agencies to do remove, treat, and dispose restoration at the 118-F-8:3 waste site. Since there is not an exposure pathway, the contamination is not at a level that would cause problems to groundwater.
- The Board recommended that the ROD should recognize and discuss the potential failure of monitored natural attenuation (MNA). Through the remedial action work plan, DOE will install additional wells to check the progress of MNA. DOE will look at the contamination trends displayed by individual wells, and alternative strategies will be explored if the data demonstrate that that MNA is not working.
- The Board recommended that the ROD should recognize and discuss the potential for catastrophic events such as a 500-year flood or a catastrophic failure of Grand Coulee Dam. The CERCLA process does not account for low-probability catastrophic events.

*Committee Questions and Responses**

Note: This section reflects individual questions, comments, and agency responses, as well as a synthesis where there were similar questions or comments.

C. The ROD Responsiveness Summary noted that strontium is difficult to remove from soil, and it will take a very long time for the strontium to be remediated with or without pump and treat strategies. The State of Oregon is concerned that there are contaminants present aside from strontium, and pump and treat efforts may be helpful in remediating these.

Q. What options remain to the Board now that DOE has responded to our comments? What can the Board do if we are not pleased with the ROD and the response?

R. Once the comment period has occurred, there is no other comment period that is required for the ROD. The HAB could, however, write a letter or release additional advice on the topic outside of a public comment period. The comments that DOE provided addressed the concerns that HAB presented.

* Attachment 2: Transcribed Flipcharts

Q. DOE noted in the preliminary response to Advice #280 that there is no exposure pathway and no threat to groundwater. How will this be ensured?

R. [DOE-RL] There are groundwater wells that DOE-RL will use to validate these models. If sampling demonstrates that contamination within groundwater is unexpectedly rising, DOE-RL will revisit management strategies.

C. If modelling scenarios demonstrate that groundwater contamination will not be a concern, the only exposure pathway left for contamination is through digging.

C. The wells may not be placed in a way that allows them to act as accurate proxies for groundwater.

C. RAP's previous experiences with the CERCLA Five-Year Review process have demonstrated that the review is not necessarily holistic in nature. However, releasing a second piece of advice at this point would not be productive. HAB Advice #280 expressed the Board's feelings very clearly.

C. One assumption that is made in the ROD is consistent weather; however, when you're talking about a 150 to 200 year lifecycle, there exists the strong potential for extreme precipitation and hydrologic events (e.g. a 500 year flood). Regardless of the CERCLA process, these should be taken into account and noted in the ROD.

C. The ROD should identify what actions will happen if future five-year review data deviates from modeling. Likely, four to five reviews will pass before data demonstrates whether or not remediation models are accurate. Future RODs should note what processes will commence if remediation strategies are not effectively working or if newer, more effective technologies become available.

C. There was no mention of the institutional controls (IC) in place at the 118-F-16 Site. This was the site that was formerly the liquid retention basin, and it will have ICs forever. Perpetual management of this site will be very expensive, and that should be noted.

C. This ROD sends up red flags. The text makes it appear as though DOE is writing away the reasoning to remediate contaminants that have long half-lives. If this principle is adapted to other areas, remediation for much of the Central Plateau, for example, can be circumvented.

C. As the Board looks to future River Corridor RODs, it is important to recognize that each ROD will be used as a template for future decisions. The Board could examine this decision and release advice based on our impressions and concerns. This advice could allow the Board to preempt future issues with RODs and prompt a fruitful discussion with Tri-Party Agreement (TPA) agencies.

C. In addition, the Board should note a guiding principle that the TPA agencies should look into emerging pump and treat technologies.

Members of the committee strongly approved the proposed idea of exploring a HAB policy-statement (a letter) incorporating HAB values. The committee further clarified that the response should use the 100 F ROD as a template, but the focus of the committee's response should act as a global policy and values

effort. Dale noted that it was important that the Board express that major HAB values were not being effectively incorporated into cleanup actions.

Central Plateau Inner Area Cleanup Principles

*Introduction***

Dale reminded the committee that the Central Plateau Inner Area Cleanup Principles were first presented to HAB members at the November 2014 Board meeting. Dale noted that, following this initial dialogue, many Board members expressed interest in discussing the topic further, as these principles would potentially be used by TPA agencies to make major cleanup decisions in the coming years. Dale stated that the purpose of RAP's initial discussion was to become more familiar with the proposed cleanup principles and to identify tentative next steps. To guide discussion efforts, committee members revisited the presentation provided by Jim Hansen, DOE-RL, at the Board meeting.

*Committee Questions and Responses**

Note: This section reflects individual questions, comments, and agency responses, as well as a synthesis where there were similar questions or comments.

C. The principles appear to advocate for leaving contaminants in place within the Central Plateau Inner Area boundaries as opposed to remediating them.

C. The creation of these principles obviously included many assumptions on the part of DOE-RL. The Board does not know what these assumptions are, which is troubling.

C. Any contamination hotspots that are discovered should be cleaned up.

C. It was implied that the TPA agencies do not like risk-based cleanup levels. Perhaps for the Inner Area, risk-based cleanup levels could be coupled with as Low as Reasonably Achievable cleanup strategies.

C. DOE-RL does not wish to characterize waste in the Inner Area, noting that the process is often resource-intensive. However, not characterizing waste creates a false starting point. Characterization needs to occur.

C. Practically, the U.S. Congress could designate the entire Inner Area as a sacrifice zone. This could be done without recognizing the consequences to Tribes, the State of Washington, and the Tri-Cities. This is something that the Board should be mindful of as we move forward with Inner Area cleanup efforts.

C. There may not have been adequate study done on hydrogeologic boundaries within the Central Plateau. DOE-RL has set new delineations (5 areas noted in the presentation as "hydrogeologic provinces"). There

* Attachment 3: Central Plateau Inner Area Cleanup Principles (DOE-ORP presentation from the November Hanford Advisory Board Meeting)

* Attachment 4: HAB Advice #226 (Central Plateau Cleanup Completion Strategy)

* Attachment 1: Transcribed flipcharts

is concern that DOE-RL will want to set points of compliance (POC) along the periphery of these delineations, but the creation of the boundary lines appears to be very assumption-rich.

C. This may be an attempt to gerrymander boundaries to manage similar waste streams on the Central Plateau. During the discussion at the November Board meeting, it seemed like much of the assessment and characterization work within the Inner Area still needs to be completed.

C. An issue manager group should be formed to look into these noted points of compliance—DOE continues to move these further away from waste sites. With regards to soil depth, DOE would like to change the POC to 10 feet as opposed To 15 feet, noting that plant roots do not go below 10 feet in depth. This is an incorrect assumption, as sage and many other desert plants have very deep tap roots that could potentially pull contamination to the surface.

C. Another concern with a 10-foot soil POC is that there would certainly be industrial use intrusions at that depth.

C. It is concerning that HAB Advice #132 was cited to support DOE-RL's industrial cleanup principle. Advice #132 does not state this.

C. The agencies abused HAB Advice #132; it does not reinforce the conclusions that DOE-RL arrived at. The Board has stated in the past that DOE needs to clean up contamination at waste sites—not miles away at an arbitrary fenceline.

C. There is no way to feasibly apply industrial cleanup standards to an entire area. Washington State law recognizes that waste cannot migrate beyond the industrial use boundary; this cannot be assured for the life-cycle of the contaminants that are present within the Inner Area.

C. The State of Oregon is concerned that these principles are setting the entire Inner Area up as a waste management site. Waste disposal at the Environmental Restoration Disposal Facility (ERDF) is expected; however, the principles thus far do not note what will become of tanks, etc. Also, how can DOE ensure that wastes stored within the Inner Area will not migrate outside of the boundaries and cause further contamination? Strategies need to be further clarified.

Q. Are the cleanup principles that DOE-RL presented agreed upon by other TPA agencies?

R. [DOE-RL] The presentation was vetted by all three agencies, and the principles are currently in motion. They have not been approved yet.

C. There is concern that the current ten square mile footprint of the inner area is not planned to be reduced any further. The Board needs to have a better idea of how small the waste management area can be reduced to, taking into account ERDF and other waste storage sites.

C. It is highly concerning that the public has not been involved in the creation of these cleanup principles. A public involvement process must be explored before these principles are finalized or set into motion, and the process must begin with a human-health risk assessment for tribal and unrestricted use scenarios. A meaningful involvement process cannot be initiated until these scenarios are run. Following

the completion of these scenarios, DOE needs to work with the Board to develop a robust public involvement plan that incorporates past HAB advice and public meetings throughout the region. The Board needs to release advice at the February 2015 meeting that recommends these strategies be undertaken before any of these cleanup principles move forward.

C. Perhaps the Board, through the formation of a Committee of the Whole (COTW) could conduct a workshop for members that looks at all of the wastes and infrastructure that is currently within the 200 Area. For example, the trenches in the 200-SW-2 Burial Grounds are all unlined; some of these trenches are also built on old effluent ponds. This existing waste and its characteristics should impact how Inner Area Cleanup is managed. A workshop would allow HAB membership to take an inventory of the area. Waste characterization could also be further explored at this workshop.

C. A COTW would be beneficial in this circumstance as many of the issues that RAP is discussing fall under the purview of many committees.

C. At this point in time, a COTW would not be appropriate. The Board needs to first release advice that urges DOE to stop moving forward with these principles until meaningful public involvement occurs. DOE could potentially frame work done by a COTW as public involvement.

C. A COTW could head-up planning efforts for the discussed background workshop until clearer next steps are determined.

The committee closed discussion by noting that RAP efforts moving forward on the topic of Central Plateau Inner Area Principles should be split into two issue manager groups. One group would begin drafting advice to bring forward at the February 2015 Board meeting. This advice would urge DOE to engage the public before moving forward with any of the cleanup principles. The second issue manager group would begin formulating framing questions and next steps for the topic; these activities would facilitate an upcoming Board workshop that would highlight waste sites within the Central Plateau. The committee noted that they would continue the conversation on cleanup principles at the December RAP meeting, and were hopeful that representatives from the U.S. Environmental Protection Agency could attend and respond to committee questions and concerns.

Committee Business

*Interim FY 2015 Work Plan**

Ryan Orth, EnviroIssues, noted that the FY 2015 Work Plan had been adopted by the Board during the November 2014 HAB meeting. The approved Work Plan incorporated the feedback that RAP members provided to committee leadership during the October meeting. The committee briefly visited each topic under RAP's purview and identified upcoming action and follow-up items.

* Attachment 5: Tri-Party Agreement Agency Fiscal Year 2015 Work Plan— RAP-focused Topics1: Transcribed flipcharts

*December Committee Meeting Topics**

The committee requested a meeting in December that will tentatively include the following topics:

- Continued discussion on the Central Plateau Inner Area Cleanup Principles
- Board reply to DOE response to HAB Advice #280

The committee agreed that they would clarify the agenda and further discuss committee business (including updating the RAP 3-Month Work Plan) during the committee's November call.

Site Visit

Following the meeting, RAP members were provided with the opportunity to tour the 300-Area, the 618-10 burial grounds, MASF (mock-up of sludge retrieval), and a drive-through of 200 Area East/West.

* Attachment 6: RAP Committee 3-Month Work Plan

Attachments

Attachment 1: Responsiveness Summary from the Proposed Plan for Remediation of the 100-FR-1, 100-FR-2, 100-FR-3, 100-IU-2, and 100-IU-6 Operable Units

Attachment 2: Transcribed Flipcharts

Attachment 3: Central Plateau Inner Area Cleanup Principles (DOE-ORP presentation from the November Hanford Advisory Board Meeting)

Attachment 4: HAB Advice #226 (Central Plateau Cleanup Completion Strategy)

Attachment 5: Tri-Party Agreement Agency Fiscal Year 2015 Work Plan— RAP-focused Topics

Attachment 6: RAP Committee 3-Month Work Plan

Attendees

Board members and alternates:

Jan Catrell	Pam Larsen (phone)	Bob Suyama
Shelley Cimon	Jonathan Matthews	Art Tackett (phone)
Dale Engstrom	Liz Mattson (phone)	Gene Van Liew
John Howieson	Maynard Plahuta	Jean Vanni (phone)
Steve Hudson (phone)	Gerald Pollet	
Mike Korenko	Dan Serres (phone)	

Others:

Greg Simon, DOE-RL	Dieter Bohrman, Ecology	Noah Cruz, CHPRC
Kris Skopek, DOE-RL	Tom Rogers, WA-DOH	Ryan Orth, EnviroIssues
Geoff Tyree, DOE-RL		Brett Watson, EnviroIssues
		Emily Bays, Hanford Challenge
		Mark McKenna, Northwind/DOE-ORP
		Annette Cary, Tri-City Herald